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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/629,424	07/31/2000	Joon-wook Park	Q60211	4425

7590 01/13/2005

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EXAMINER

GEREZGIHER, YEMANE M

ART UNIT	PAPER NUMBER
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2144

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/629,424

Applicant(s)

PARK, JOON-WOOK

Examiner

Yemane M Gerezgiher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-18 and 20-24 is/are rejected.
- 7) ☒ Claim(s) 10 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Amendment received on 08/23/2004 has been entered. Claim 2 has been cancelled, Claims 1, and 3-24 are pending in this application.

Allowable Subject Matter

2. Claims 10 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

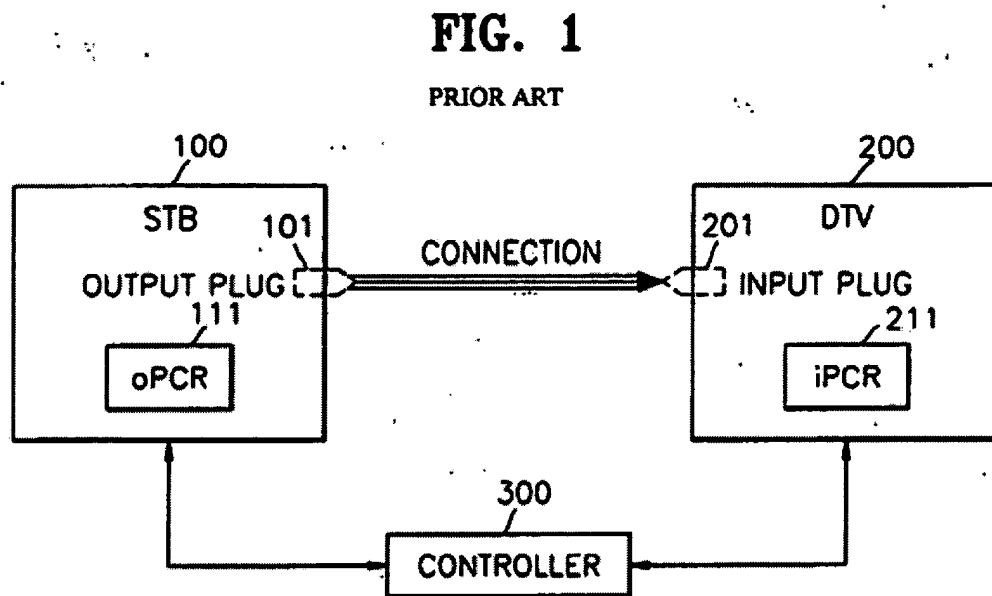
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9, 11-18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter referred to as AAPA) in view of the 1394 Trade Association (AV/C Digital Interface Command Set General Specification).

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As per claims 1, 11 and 20, AAPA disclosed transmitting a management command from a controller/control device to other AV devices connected via digital interface (IEEE-1394 as defined by the IEC 61883, Claims 4, 12-14 and 22) specifying status change of the connected devices (See AAPA, Page 1 Line 22 through Page 2 Line 6 and Figure 1



below).

As defined in the IEC 61883, the applicant also admits that the parameters of the iPCR and oPCR having therein the **on-line** bit indicating whether the corresponding output/input plug is online, which is value one or offline

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FIG. 2

PRIOR ART

oPCR

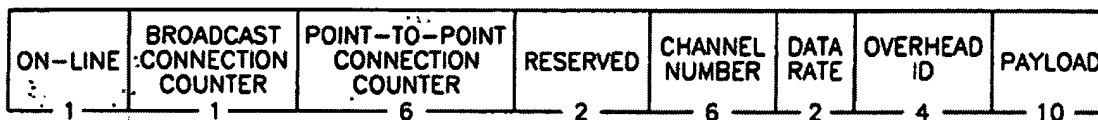
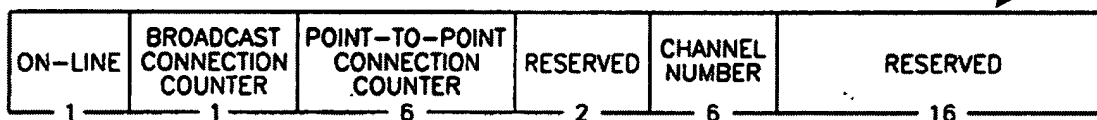


FIG. 3

PRIOR ART

iPCR



with a value zero), the **broadcast connection counter** bit (indicating whether a broadcast-out connection to the output plug exists, which has a value one or not having a value zero), the 6-bit **point-to-point connection counter** (indicating the number of point to point connections to the output plug) the 6-bit **channel number** (indicating the actual number used by the output plug)... (See Applicant's disclosure on Page 2 Line 7 through Page 3 Line 12 and Figures 2 and 3 disclosed above).

The inventive entity correctly admitted that there exists an "algorithm for informing a control device or the connected other device of this fact has been presented by defining a new control command in an audio-video/control

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command transaction set (AV/C CTS). Specifically when any change occurs in a device for transmitting or receiving real time data, a new control command is defined in AV/C CTS to indicate this change. According to the AV/C CTS, information is available regarding whether each input plug desires to receive any input information, and whether each output plug desires to output information". See Background information disclosed on page 3, Lines 13-21 and Figures 1-3. The applicant further admitted that the predetermined digital interface been IEEE-1394 (See Background information on Page 1, Lines 15-24) and a connection register information with identification information indicating an input and output plug where a connection is established and where the output plug control register and input plug control register been registers for controlling a connection defined in an IEC 61883 format comprising bit fields representing multiple status changes (flag bits for on-line and off-line, a play load, data rate...). See Background information pages 1-3 and Figures 2 and 3.

The AAPA substantially disclosed the claimed invention. However, AAPA was silent about the target devices responding to a communication command informing or notifying a control device about a change that occurs in a

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plug in the connection status parameter of the devices connected within. However, as evidenced by the teachings of the 1394 Trade Association "informing or notifying a control device a change that happens in the connection status parameter of the AV devices" was known in the art at the time of the invention. See 1394 Trade Association Page 35 Section 9.1 (Connection Usage command) through Page 46 Section 9.10 (Output Plug Signal Format command) and Page 17 Section 7.3 (Status Commands) through Page 18 Section 7.5 (Notify Commands). 1394 Trade Association further disclosed establishing or breaking connections if the on-line status indication bit is on or off (Claims 15 and 16, See Page 39-40: "The perm bit in a CONNECT status response frame indicates whether a connection is permanent (value 1) or not (value 0). Permanent connections within an AV unit are connections that cannot be altered by the CONNECT control command or deleted by the DISCONNECT command, in which case a REJECTED response shall be returned ..." and where the command structure comprising an operand designating bit fields of the iPCR and oPCR of the AV units as in claims 23 and 24, See Figure 9-7 on page 40).

Therefore, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at

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the time the invention was made to take the teachings of the 1394 Trade Association related to AV/C Digital Interface Command and have modified the AAPA in order to facilitate the connection management of the AV devices connected with digital interface (IEEE-1394-1395) by allowing changes for establishing and deleting connections in the input and output plugs according to the status changes in the plug registers. See Pages 37-40 Section 9.2 (CONNECT command).

Response to Arguments

5. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection. However, the examiner likes to address the following argument recited by the inventive entity:

"... the "new control command" of the prior art algorithm of Applicant's Admitted Prior Art simply notifies the control device that one of the connected devices does not desire to receive or transmit data any longer and does not transmit a notify response from the sink or source device to the control device when a change occurs in the bit field of the iPCR or the OPCR. That is, as indicated at page 3, lines 22-25. the new command of the AV/C CTS utilized by the

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prior art algorithm does not provide information regarding changes in other factors for controlling data flow, **such as the bandwidth and information as to how many devices are connected to a particular connection. On the other hand, the present invention enables the control device to be informed of changes in any of the bit fields of the iPCR or OPCR which are designated in the connection management command.**" See Applicant's Remark Page 11.

However, these arguments are not in the claimed limitations of claims 1 and 11. Both claims 1 and 11 are very vaguely claiming, ... *informing a control device a change in the connection status parameter of the iPCR oPCR, which occurs in at least one of the first and second devices...* which were disclosed by the teachings of the 1394 Trade Association and the AAPA above at the time of the applicants invention.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. The prior art made of record (See Form PTO-892) and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Yemane Gerezgiher whose telephone number is (571) 272-3927. The examiner can normally be reached on Monday- Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful. The examiner's supervisor, William Cuchlinski, can be reached at (571) 272-3925.

YMG AU: 2144


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SUPERVISORY PATENT EXAMINER
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